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<120> Application of KIAA0172 gene functions for therapeutics, diagnosis, and pharmaceuticals

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<160> 49

<170> PatentIn Ver. 2.1

<210> 1

<211> 1194

<212> PRT

<213> Homo sapiens

<400> 1

Met Glu Thr Arg Arg Arg Leu Glu Gln Glu Arg Ala Thr Met Gln Met

1

5

10

15

Thr Pro Gly Glu Phe Arg Arg Pro Arg Leu Ala Ser Phe Gly Gly Met

20

25

30

Gly Thr Thr Ser Ser Leu Pro Ser Phe Val Gly Ser Gly Asn His Asn
35 40 45

Pro Ala Lys His Gln Leu Gln Asn Gly Tyr Gln Gly Asn Gly Asp Tyr
50 55 60

Gly Ser Tyr Ala Pro Ala Ala Pro Thr Thr Ser Ser Met Gly Ser Ser
65 70 75 80

Ile Arg His Ser Pro Leu Ser Ser Gly Ile Ser Thr Pro Val Thr Asn
85 90 95

Val Ser Pro Met His Leu Gln His Ile Arg Glu Gln Met Ala Ile Ala
100 105 110

Leu Lys Arg Leu Lys Glu Leu Glu Glu Gln Val Arg Thr Ile Pro Val
115 120 125

Leu Gln Val Lys Ile Ser Val Leu Gln Glu Glu Lys Arg Gln Leu Val
130 135 140

Ser Gln Leu Lys Asn Gln Arg Ala Ala Ser Gln Ile Asn Val Cys Gly
145 150 155 160

Val Arg Lys Arg Ser Tyr Ser Ala Gly Asn Ala Ser Gln Leu Glu Gln
165 170 175

Leu Ser Arg Ala Arg Arg Ser Gly Gly Glu Leu Tyr Ile Asp Tyr Glu
180 185 190

Glu Glu Glu Met Glu Thr Val Glu Gln Ser Thr Gln Arg Ile Lys Glu

195	200	205
Phe Arg Gln Leu Thr Ala Asp Met Gln Ala Leu Glu Gln Lys Ile Gln		
210	215	220
Asp Ser Ser Cys Glu Ala Ser Ser Glu Leu Arg Glu Asn Gly Glu Cys		
225	230	235 240
Arg Ser Val Ala Val Gly Ala Glu Glu Asn Met Asn Asp Ile Val Val		
	245	250 255
Tyr His Arg Gly Ser Arg Ser Cys Lys Asp Ala Ala Val Gly Thr Leu		
260	265	270
Val Glu Met Arg Asn Cys Gly Val Ser Val Thr Glu Ala Met Leu Gly		
275	280	285
Val Met Thr Glu Ala Asp Lys Glu Ile Glu Leu Gln Gln Gln Thr Ile		
290	295	300
Glu Ala Leu Lys Glu Lys Ile Tyr Arg Leu Glu Val Gln Leu Arg Glu		
305	310	315 320
Thr Thr His Asp Arg Glu Met Thr Lys Leu Lys Gln Glu Leu Gln Ala		
	325	330 335
Ala Gly Ser Arg Lys Lys Val Asp Lys Ala Thr Met Ala Gln Pro Leu		
340	345	350
Val Phe Ser Lys Val Val Glu Ala Val Val Gln Thr Arg Asp Gln Met		
355	360	365

Val Gly Ser His Met Asp Leu Val Asp Thr Cys Val Gly Thr Ser Val
370 375 380

Glu Thr Asn Ser Val Gly Ile Ser Cys Gln Pro Glu Cys Lys Asn Lys
385 390 395 400

Val Val Gly Pro Glu Leu Pro Met Asn Trp Trp Ile Val Lys Glu Arg
405 410 415

Val Glu Met His Asp Arg Cys Ala Gly Arg Ser Val Glu Met Cys Asp
420 425 430

Lys Ser Val Ser Val Glu Val Ser Val Cys Glu Thr Gly Ser Asn Thr
435 440 445

Glu Glu Ser Val Asn Asp Leu Thr Leu Leu Lys Thr Asn Leu Asn Leu
450 455 460

Lys Glu Val Arg Ser Ile Gly Cys Gly Asp Cys Ser Val Asp Val Thr
465 470 475 480

Val Cys Ser Pro Lys Glu Cys Ala Ser Arg Gly Val Asn Thr Glu Ala
485 490 495

Val Ser Gln Val Glu Ala Ala Val Met Ala Val Pro Arg Thr Ala Asp
500 505 510

Gln Asp Thr Ser Thr Asp Leu Glu Gln Val His Gln Phe Thr Asn Thr
515 520 525

Glu Thr Ala Thr Leu Ile Glu Ser Cys Thr Asn Thr Cys Leu Ser Thr
530 535 540

Leu Asp Lys Gln Thr Ser Thr Gln Thr Val Glu Thr Arg Thr Val Ala
545 550 555 560
Val Gly Glu Gly Arg Val Lys Asp Ile Asn Ser Ser Thr Lys Thr Arg
565 570 575

Ser Ile Gly Val Gly Thr Leu Leu Ser Gly His Ser Gly Phe Asp Arg
580 585 590

Pro Ser Ala Val Lys Thr Lys Glu Ser Gly Val Gly Gln Ile Asn Ile
595 600 605

Asn Asp Asn Tyr Leu Val Gly Leu Lys Met Arg Thr Ile Ala Cys Gly
610 615 620

Pro Pro Gln Leu Thr Val Gly Leu Thr Ala Ser Arg Arg Ser Val Gly
625 630 635 640

Val Gly Asp Asp Pro Val Gly Glu Ser Leu Glu Asn Pro Gln Pro Gln
645 650 655

Ala Pro Leu Gly Met Met Thr Gly Leu Asp His Tyr Ile Glu Arg Ile
660 665 670

Gln Lys Leu Leu Ala Glu Gln Gln Thr Leu Leu Ala Glu Asn Tyr Ser
675 680 685

Glu Leu Ala Glu Ala Phe Gly Glu Pro His Ser Gln Met Gly Ser Leu
690 695 700

Asn Ser Gln Leu Ile Ser Thr Leu Ser Ser Ile Asn Ser Val Met Lys
705 710 715 720
Ser Ala Ser Thr Glu Glu Leu Arg Asn Pro Asp Phe Gln Lys Thr Ser
725 730 735

Leu Gly Lys Ile Thr Gly Asn Tyr Leu Gly Tyr Thr Cys Lys Cys Gly
740 745 750

Gly Leu Gln Ser Gly Ser Pro Leu Ser Ser Gln Thr Ser Gln Pro Glu
755 760 765

Gln Glu Val Gly Thr Ser Glu Gly Lys Pro Ile Ser Ser Leu Asp Ala
770 775 780

Phe Pro Thr Gln Glu Gly Thr Leu Ser Pro Val Asn Leu Thr Asp Asp
785 790 795 800

Gln Ile Ala Ala Gly Leu Tyr Ala Cys Thr Asn Asn Glu Ser Thr Leu
805 810 815

Lys Ser Ile Met Lys Lys Lys Asp Gly Asn Lys Asp Ser Asn Gly Ala
820 825 830

Lys Lys Asn Leu Gln Phe Val Gly Ile Asn Gly Gly Tyr Glu Thr Thr
835 840 845

Ser Ser Asp Asp Ser Ser Ser Asp Glu Ser Ser Ser Ser Glu Ser Asp

850	855	860
Asp Glu Cys Asp Val Ile Glu Tyr Pro Leu Glu Glu Glu Glu Glu Glu		
865	870	875 880
Glu Asp Glu Asp Thr Arg Gly Met Ala Glu Gly His His Ala Val Asn		
	885	890 895
Ile Glu Gly Leu Lys Ser Ala Arg Val Glu Asp Glu Met Gln Val Gln		
	900	905 910
Glu Cys Glu Pro Glu Lys Val Glu Ile Arg Glu Arg Tyr Glu Leu Ser		
	915	920 925
Glu Lys Met Leu Ser Ala Cys Asn Leu Leu Lys Asn Thr Ile Asn Asp		
	930	935 940
Pro Lys Ala Leu Thr Ser Lys Asp Met Arg Phe Cys Leu Asn Thr Leu		
945	950	955 960
Gln His Glu Trp Phe Arg Val Ser Ser Gln Lys Ser Ala Ile Pro Ala		
	965	970 975
Met Val Gly Asp Tyr Ile Ala Ala Phe Glu Ala Ile Ser Pro Asp Val		
	980	985 990
Leu Arg Tyr Val Ile Asn Leu Ala Asp Gly Asn Gly Asn Thr Ala Leu		
	995	1000 1005
His Tyr Ser Val Ser His Ser Asn Phe Glu Ile Val Lys Leu Leu Leu		

1010	1015	1020
Asp Ala Asp Val Cys Asn Val Asp His Gln Asn Lys Ala Gly Tyr Thr		
1025	1030	1035
		1040
Pro Ile Met Leu Ala Ala Leu Ala Ala Val Glu Ala Glu Lys Asp Met		
1045	1050	1055
Arg Ile Val Glu Glu Leu Phe Gly Cys Gly Asp Val Asn Ala Lys Ala		
1060	1065	1070
Ser Gln Ala Gly Gln Thr Ala Leu Met Leu Ala Val Ser His Gly Arg		
1075	1080	1085
Ile Asp Met Val Lys Gly Leu Leu Ala Cys Gly Ala Asp Val Asn Ile		
1090	1095	1100
Gln Asp Asp Glu Gly Ser Thr Ala Leu Met Cys Ala Ser Glu His Gly		
1105	1110	1115
		1120
His Val Glu Ile Val Lys Leu Leu Leu Ala Gln Pro Gly Cys Asn Gly		
1125	1130	1135
His Leu Glu Asp Asn Asp Gly Ser Thr Ala Leu Ser Ile Ala Leu Glu		
1140	1145	1150
Ala Gly His Lys Asp Ile Ala Val Leu Leu Tyr Ala His Val Asn Phe		
1155	1160	1165
Ala Lys Ala Gln Ser Pro Gly Thr Pro Arg Leu Gly Arg Lys Thr Ser		
1170	1175	1180

Pro Gly Pro Thr His Arg Gly Ser Phe Asp

1185

1190

<210> 2

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 2

tactttgtgg agacccccta

20

<210> 3

<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 3

gcttgtcgtg cccatgcctc c

21

<210> 4

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 4

cactggggtg gagatccctg

20

<210> 5

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 5

attatggtag ctatgcccga

20

<210> 6

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 6

tgcagcacat ccgcgagcag at

22

<210> 7
<211> 18
<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 7
tccggcaact tacagcag

18

<210> 8
<211> 20
<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 8
cagctgtgag gcctcctcag

20

<210> 9
<211> 22
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<223> Description of Artificial Sequence:Synthetic DNA

<400> 9

gcctctgtgg tacacgacga tg

22

<210> 10

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 10

aggcatctcc tgccagcctg aat

23

<210> 11

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 11

tccacagacc tcccagcaca tc

22

<210> 12

<211> 29

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 12

tctgtgttgc tgcctgtttc gcagacgct

29

<210> 13

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 13

agacaagtgt tggcgcagga ctc

23

<210> 14

<211> 17

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 14

ggacagtagc tgtagga

17

<210> 15

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 15

cagctgatgg cctgtcaaac cc

22

<210> 16

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 16

gggttcctca gctcttcagt gc

22

<210> 17

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 17

tcctcattcc caggicctca gg

22

<210> 18

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 18

cagtcctagc atcacacact ctg

23

<210> 19

<211> 18

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 19

tcctgccaat gactgtga

18

<210> 20

<211> 26

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 20

gggtgtgagt ttccattttt attgcc

26

<210> 21

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 21

actgacagca ttagcctcta gaac

24

<210> 22

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<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 22

tgagcacacc ttgcatctcc tga

23

<210> 23

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 23

cattaaatgt gggaggggca a

21

<210> 24

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 24

tcttcttgtg accaatcgta actt

24

<210> 25

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 25

tacacactgg ggatggtgtt tgc

23

<210> 26

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 26

aatagaagaa ctaacgacca cttagg

25

<210> 27

<211> 23

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 27

ttagagaaga gagggtagaa ggg

23

<210> 28

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 28

agaaggggct gcttcctaag aga

23

<210> 29

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 29

gggtgcattc ctgagcacag ga

22

<210> 30

<211> 24

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 30

cagtacgtac ttctgaagtc ctg

24

<210> 31

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 31

tcccagagct cccgtccaga g

21

<210> 32

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 32

gagaaaccca acatggcttg ttct

24

<210> 33

<211> 21

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 33

ggggtccacc agtctggtgg a

21

<210> 34

<211> 24

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 34

tgaggtcact tattaacccc cagt

24

<210> 35

<211> 23

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 35

gtatctgtca cccaacagg aac

23

<210> 36

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 36

cagatgtggt cctgggttct

20

<210> 37

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 37

tcagtcaagg tcacagtcac attaa

25

<210> 38

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 38

ttgtgctgtc tgtcagcata tg

22

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 39

aagtaaattgt gacaggtaaa aagg

24

<210> 40

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 40

cttgacacag tattttcagc ttttg

25

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 41

gaattccttc ctcccctgtc

20

<210> 42

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 42

aaaccaggca caatcaaacc

20

<210> 43

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 43

gtggagacca ggacaaggaa cagaaagac

29

<210> 44

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 44

tccagagggg gaggtggctt t

21

<210> 45

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 45

gcagctgtga ggcctcctca g

21

<210> 46

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 46

tccacagacc tcccagcaca tc

22

<210> 47

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 47

aagaagagaa aaggtagtig g

21

<210> 48

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 48

ctattaaaac tcaatttcctt t

21

<210> 49

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 49

cctaaaacct ctataataca caac

24